

Nebraska Resources

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Editor's Note:

The web page address for the Nebraska Department of Natural Resources has changed. The new address is:

http://dnr.ne.gov

DNR Issues

2006 Annual Evaluation of Availability of Hydrologically Connected Water Supplies

By Steve Gaul



On December 30, 2005 the Department published the "2006 Annual Evaluation of Availability of Hydrologically Connected Water Supplies".

The report included a map depicting newly indentified geographic areas within which surface water and ground water are hydrologically connected for purposes of a preliminary determination of fully appro-

priated. That map has since been revised to include additional areas and exclude some areas. A revised map is shown below and on page 2.

The report was the first annual evaluation of hydrologically connected water supplies required under LB 962 (2004). A Hall number of basins

Buffalo

Kearney

Adams

Clay

Hastings

Adams

Clay

Scale in Miles

Phelps

Holdrege

Kearney

Rearney

Clay

Adams

Newly Identified

Hydrologically Connected Areas

County Lines

Major Cities

in the state were declared fully appropriated or overappropriated in 2004 and the annual reports are to provide preliminary conclusions on whether conditions in additional basins, subbasins or reaches are such that they should also be determined to be fully appropriated. As a general concept a basin is fully appropriated when existing uses of both surface water and hydrologically connected ground water supplies are equal to but do not exceed the available supplies over the long term. A fully appropriated determination results in a temporary stay on new high capacity well development in a basin, new surface water appropriations and new irrigated acreage (see related map on page two) and requires the NRD and DNR to begin work on a joint integrated management plan.

In addition to the preliminary determinations, the report provides information on the nature and extent of water use in each basin, the areas considered to be hydrologically connected and the extent to which current uses affect available near term and long term water supplies. The report

Continued on p.2

2006 Annual Evaluation Continued from page 1

also explains the technical methodology used to make the determination. Basins analyzed included the Big Blue, Little Blue, Elkhorn, Loup, Missouri Tributaries, Nemaha, Lower Niobrara, and the Lower Platte. A portion of the ground water area hydrologically connected to the fully appropriated Platte River was also analyzed. The report contains over 700 pages including appendices and over 400 figures depicting hydrology, geology, precipitation and water use in the affected basins. Compact Discs (CDs) of the complete report are available from DNR by contacting the Department at (402) 471-2363.

How the Department makes its determination is of interest to many water users and DNR staff have been making presentations around the state to explain the rule and technical work behind the conclusion. As of early March presentations had been made in Wahoo, Lincoln, and Norfolk. Those interested in presentations in their area should contact Jeff Shafer or Jim Cannia at the Department.



At their annual organization meeting held in January, members of the Nebraska Natural **Resources Commission** elected officers for the coming year. Elected to serve a one-year term as Chairperson was member Gary Anderson, a Dixon County farmer who represents the Elkhorn River Basin on the Commission, Elected to serve as Vice-Chairperson on the commission was Wayne Madsen, a Hitchcock County resident who represents groundwater irrigators in Nebraska. These two members will head the sixteenmember Nebraska Natural Resources Commission. Members of the commission represent the interests of Nebraska's 13 major river basins and the three specific interests of surface water irrigators, groundwater irrigators and municipal water users. The commission has broad responsibilities in soil and water conservation and development of those resources.

Nebraska Ground Water Management Areas/ **DNR/NRD** Integrated **Management Areas**

SNAPSHOT

O F

PRESENT

WATER MANAGEMENT

AREAS

AND

RESTRICTIONS



Moratoriums on **Surface Water**



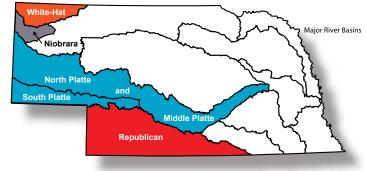
Moratoriums/Stays on New Groundwater Wells/Irrigated Acres

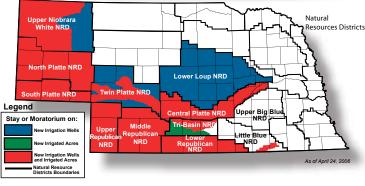


Endangered Species Restrictions











Floodplain Mapping Status

By Jim Williams

As part of floodplain management coordination, NDNR is responsible for mapping Nebraska's floodplains and coordinating mapping efforts for regions in Nebraska where floodplain maps are not adequate. The Department of Natural Resources is currently working with FEMA to map counties that were previously unmapped. and to update older maps to an electronic format. The state map at the right shows the mapping status of Nebraska's counties that are mapped or are currently under contract to be mapped. A county is considered finished only when they have an electronic, reviewed, and revised countywide map available. These newly-mapped flood zones may be viewed at:

http://dnrmap2.dnr.state.ne.us/ website/fppublic/viewer.htm

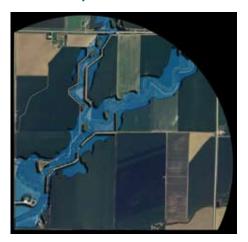
As part of the mapping process, NDNR calculates the elevation of the 1%-chance (also known as the 100year) flood. This data is critical for floodplain management; it may be reviewed or requested from

http://dnrdata.dnr.ne.gov/ floodplain/bfe/

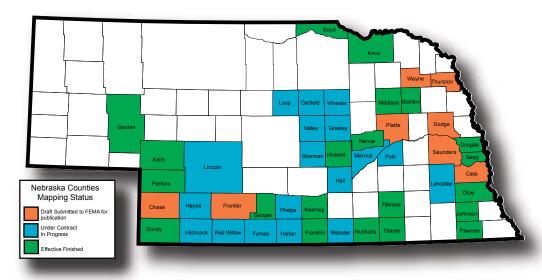
For additional information on the mapping process visit

http://www.dnr.ne.gov/floodplain/

flood/LAMI.pdf



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Approved Soil and Water Conservation Practices	Program Accomplishments in 2005	Total Program Accomplishment 1977-2005
Terraces	151 miles	11,574 miles
Terrace Underground Outlets	182,772 feet	5,203,331 feet
Water Impoundment Dams	5	1,320
Grade Stabilization Structures	7	695
Irrigation Tailwater Recovery Pits	1	867
Diversions	45,517 cu. yds.	1,631,808 cu.yds.
Grassed Waterways	129 acres	13,893 acres
Water and Sediment Control Basins	19	582
Dugouts for Livestock Water	10	659
Pasture or Range Seeding	3,633 acres	60,086 acres
Critical Area Plantings-Grass	17 acres	1,361 acres
Windbreaks	584 acres	39,055 acres
Windbreak Renovations	17 acres	3,764 acres
Irrigation Return Pipe	1,400 feet	548,722 feet
Planned Grazing Systems	90,294 acres	3,481,017 acres
*Irrigation Surge Valves	0	632
Irrigation Water Management	28,597 acres	289,145 acres
Repair of Practices	17	195
Stream Bank Stabilization	0	3
**Republican Basin GW Meter Program	0 meter	1,713 meters
**Republican Basin SW Meter Program	0 meters	82 meters
Republican Basin Water Meter Program	1,271 meters	5,451 meters
Water Mgt. Area Water Meter Program	6 meters	504 meters
TOTAL DOLLARS	\$3,041,254.00	\$74,117,079
TOTAL DOLLARS * Rescinded as separate practice effective 7-1-94 ** These practices not used after 7-1-2001	\$3,041,254.00	\$74,117,07 Febru

The Nebraska Soil and Water Conservation Fund was established in 1977 to provide state financial assistance to Nebraska landowners installing approved soil and water conservation measures. Since 1977 the State of Nebraska has provided over \$74 Million in state cost-share assistance to Nebraska land owners. The fund is administered at the state level by the Nebraska Department of Natural Resources and is coordinated by the state's 23 Natural Resources Districts at the local level with technical assistance provided by the Natural Resources Conservation Service. For additional information on the Nebraska Soil and Water Conservation Fund, contact the Nebraska Department of Natural Resources or your local Natural Resources District.



MULLEN DAM PROJECT

By Tom Pesek

The **Upper Loup NRD** has submitted a project proposal for state funding assistance through the **Nebraska Resources Development Fund**. Specifically, the NRD is proposing an earthern dam on the Middle Loup River approximately four miles east of Mullen. A **655 acre reservoir with a depth of over 30 feet** in a substantial portion of the reservoir would result. Public recreation facilities would be developed. The project is planned to support trout fishing, no-wake boating, RV and tent camping, trails, picnic areas, and a Sandhills interpretive site. **The project has an estimated cost of \$7,296,000**.

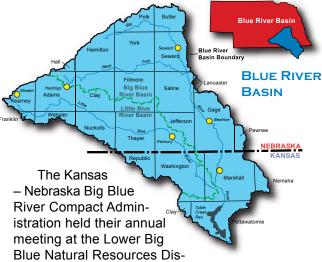
At its April 6th meeting, the Natural Resources Commission advised the NRD that it may proceed with a project application and feasibility study and directed that the sponsor address several questions/comments that arose during review of the proposal by DNR and other state agencies. The proposed dam is located on a river reach that has been identified by the National Park Service as possibly eligible for inclusion in the National Wild and Scenic Rivers system. This issue will need to be addressed at the onset of further planning.





Kansas – Nebraska Big Blue River Compact

By Jeff Shafer



trict office in Beatrice, Nebraska on May 11, 2006. Agenda items included updates from the Engineering Committee on the current hydrology in the basin and from the Water Quality Committee on pollution abatement programs in the basin.

The Department of Natural Resources presented information on the Technical Basis of the 2006 Annual Evaluation of Availability of Hydrologically Connected Water Supplies Report. The presentation contained specific information related to the chapter reports for the Little Blue River Basin and the Big Blue River Basin.



Three longtime employees with the Department of Natural Resources recently retired. **Gayle Starr**, a 40 plus years employee with the state retired at the end of February this year. Gayle, the Administrative Officer and a Division Supervisor, had responsibilities dealing with the department's budget, personnel and was often called upon to represent the agency. Gayle was the recipient of the 2000 Supervisor of the Year Award for the Natural Resources Commission. Gayle's attention to details, his helpful advice and experience will be missed. The department wishes him the best in retirement.

Karl Wadas had served 37 years with the state when he retired at the end of December of last year. As Supervisor of the Ord Field Office and its staff of three, Karl saw much of central Nebraska as he performed his duties over the years. A recipient of the 2000 Supervisor of the Year Award for the Department of Water Resources, Karl said "I enjoy helping others solve problems and make correct decisions about water use." Karl's positive attitude and outlook on life will be missed and we all wish him happiness in retirement.

Harvey Mortimore, a Resources Specialist with the Bridgeport Field Office retired at the end of January this year. A dedicated employee of 35 years, Harvey spent many hours on the back roads of western Nebraska monitoring and helping surface water irrigators. His talent of working with people will be missed.

The services provided to the state and its citizens by these three dedicated gentlemen will be missed. The department staff wishes all three the very best in their retirement.



The Platte-Republican CREP has been in effect for an entire year as of April 4th this year. To date over one half of the available 100,000 acres of this program have been offered for enrollment. Since the initial sign-up, the Nebraska Department of Natural Resources has received applications for 51,061 acres.

The Platte-Republican CREP is a combined program of the United States Department of Agriculture, Farm Services Agency and the State of Nebraska whose goal is to improve water quality and quantity, and create or restore wildlife habitat by converting irrigated cropland to non-irrigated habitat. The elimination of irrigation reduces the amount of nitrogen, phosphorus and atrazine that leaches into the ground and surface water and the vegetative buffers reduce run-off into streams and rivers. The Platte-Republican CREP resource area covers an approximate 2-mile stretch on either side of the Republican and Platte Rivers. It extends from the Wyoming border to Central Nebraska to include 100,000 cropland acres near the Republican and Platte rivers and their tributaries.

On February 17th, 2006 the first amendment to the Platte-Republican

between the State of Nebraska and the United States Department of Agriculture was signed into effect. This amendment opens up enrollment between the two basins. Previously, there was a 50,000 acre limit in each of the Platte and Republican River Basins. Now acres can be offered anywhere in the resource area, with one restriction. Above Lake McConaughy enrollment on lands served by groundwater and surface water irrigation or only surface water is restricted to 5,000 acres. This 5,000 acre cap has already been reached.

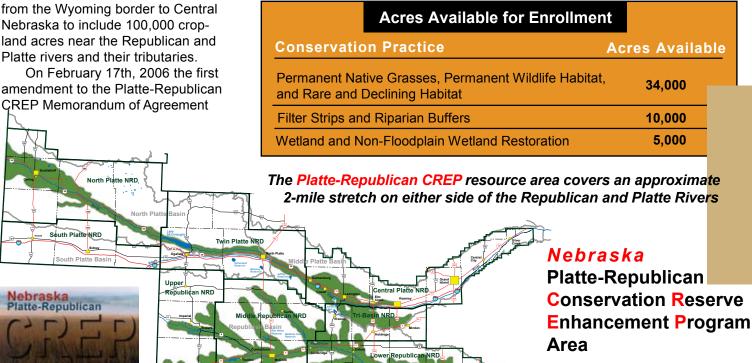
Enrollment practice goals remain the same with 85,000 acres allotted for permanent native grasses, permanent wildlife habitat, and rare and declining habitat, 10,000 acres allotted for filter strips and riparian buffers, and 5,000 acres allotted for wetland restoration and non-floodplain wetland restoration. To date, all acres offered for enrollment are for permanent native grasses, permanent wildlife habitat, or

rare and declining habitat. The chart below identifies the number of acres that are still available for enrollment by

For additional information on the program visit your FSA County Office, the Nebraska Department of Natural Resources website at www.dnr.ne.gov or the Nebraska Farm Service Agency website at www.fsa.usda.gov/ne/ .

conservation practice.

The State of Nebraska will be hosting the 2006 National CREP Forum titled "CREP: Creative Solutions, Multiple Benefits, Many Partners". The Forum will be held at the Cornhusker Hotel from August 14th through the **17th.** This Forum will be attended by FSA, NRCS, and State and local officials from existing and potential CREP States. Check for information about the event at the Nebraska Department of Agriculture's website at www.agr.ne.gov.



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State of Nebraska

Nebraska Department of Natural Resources

Ann Salomon Bleed, Acting Director

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Nebraska Department of Natural Resources....

....dedicated to the sustainable use and proper management of the State's natural resources.